recombinase is capable of using factors provided by the mammalian cells in order to mediate recombinase activity.

28. (Fourth Amendment) A method for mediating transgenic intramolecular recombination selected from deletions of DNA sequences located between two *six* sites and inversions of DNA sequences located between two *six* sites, in chromatin structures of mammalian cells, comprising the step of transfecting mammalian cells with prokaryotic beta recombinase and DNA sequences containing *six* sites that allow recombination activity; wherein the prokaryotic beta recombinase is capable of using factors provided by the mammalian cells in order to mediate recombinase activity.

32. (Twice Amended) A method according to claim 27, wherein an intramolecular recombination between two *six* sites in mammalian cells is obtained.

43. (Third Amendment) A method for catalyzing site-specific resolution of DNA sequences located between *six* sites in an extrachromosomal substrate transfected into a mammalian cell, comprising the step of catalyzing the site-specific resolution with beta recombinase; wherein the mammalian cell provides factors which beta recombinase is capable of using in order to mediate recombinase activity.

53. (Third Amendment) A method for mediating transgenic intramolecular recombination in mammalian cells, comprising the step of transfecting mammalian cells with prokaryotic beta recombinase and DNA sequences containing *six* sites that allow recombination activity; wherein the prokaryotic beta recombinase is capable of using factors provided by the mammalian cells in order to mediate recombinase activity; and wherein the factors provided by the mammalian cells comprise HMG1 chromatin-associated protein.

E5 54. (Amended) A method according to claim 28, wherein the factors provided by the mammalian cells comprise chromatin-associated protein.

E6 sub F6 55. (Third Amendment) A method for mediating transgenic intramolecular recombination in chromatin structures of mammalian cells, comprising the step of transfecting mammalian cells with prokaryotic beta recombinase and DNA sequences containing *six* sites that allow recombination activity; wherein the prokaryotic beta recombinase is capable of using factors provided by the mammalian cells in order to mediate recombinase activity; and wherein the factors provided by the mammalian cells comprise HMG1 chromatin-associated protein.

E7 sub F7 60. (Third Amendment) A method of mediating beta recombinase activity comprising the step of transfecting mammalian cells with beta recombinase and DNA sequences containing *six* sites that allow recombination activity; wherein the beta recombinase is capable of using mammalian cell factors of the mammalian cells to mediate recombinase activity.

E8 61. (Amended) A method according to claim 60, wherein the mammalian cell factors comprise HMG1 chromatin-associated protein.

Please add the following claims 64 and 65:

E9 sub F8 --64. (New) A method for mediating transgenic intramolecular recombination selected from deletions of DNA sequences located between two *six* sites and inversions of DNA sequences located between two *six* sites, in mouse cells, comprising the step of transfecting mouse cells with prokaryotic beta recombinase and DNA sequences containing *six* sites that allow recombination activity; wherein the prokaryotic beta recombinase is

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capable of using factors provided by the mouse cells in order to mediate recombinase activity.--

--65. (New) A method for mediating transgenic intramolecular recombination selected from deletions of DNA sequences located between two *six* sites and inversions of DNA sequences located between two *six* sites, in chromatin structures of mouse cells, comprising the step of transfecting mouse cells with prokaryotic beta recombinase and DNA sequences containing *six* sites that allow recombination activity; wherein the prokaryotic beta recombinase is capable of using factors provided by the mouse cells in order to mediate recombinase activity.--